Service Ma

Auto-Reverse Stereo Cassette Play SUPPL. + SM-RQJ7

03130333 SM-RQJ8

91004988

Mini Cassette 43

> Black, Red White, Blue

• The RQ-J8 is a modified version of the RQ-J7 slightly different in design and accessories.

• Please use this manual together with the service manual for model No. RQ-J7 order No. GAD8401330C8-04 and supplementary service manual RQ-J7 order No. GAD84070330S8.



This is the Service Manual for the following areas.

Z ... For all European areas except United Kingdom.

· For United Kingdom.

· For Asia, Latin America, Middle East and Africa areas.

· For Australia.

Area	Color
ZE	Black, Red, White and Blue
X L	Black, Red and White

When servicing model RQ-J8, replace the cabinet, accessories, and packing parts list for mode RQ-J7 with the below parts list.

REDI ACEMENT PARTS LIST

Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description
CABINET PARTS		G 11 XQN16 + A35FC Screw, Bottom Case M'tg (White) ⊕1.6×3.5		G 21 G 22	QHQ1362	Ornament Screw (White)		
G 1	RYMQJ8Z	Front Cabinet Ass'y	G 12	XQN16 + A5FR	Screw, Circuit Board M'tg			
G 1-1	QYT51667	Lock Knob			⊕1.6×5		ACCE	SSORIES
G 1-2	QBC8019	Lock Spring	G 13	XYC2+CF16	Screw, Circuit Board M'tg			
G 2	QBN8038	Battery Spring			⊕2×1.6	A 1	QFK0203K	Bracket
G 3	RKK292Z1	Battery Cover (Black)	G 14	XQN17 + C3FZ	Screw, Volume Knob M'tg	A 2 [Z][E]	RP9536Z	Headphones
G 3	RKK292Z2	Battery Cover (Red)			⊕1.7×3		RP9545X	Headphones
G 3	RKK292Z8	Battery Cover (White)	G 15	XQN16 + A35FZ	Screw, Main Case M'tg	A 2-1 [Z][E]	RWR84614A28	Ear Pad
G 3 [Z][E]	RKK292Z6	Battery Cover (Blue)			⊕1.6×3.5	A 2-1 [X][L]	RWR84615A29	Ear Pad
G 4	RKM906Z1	Bottom Case (Black)	G 16	XTNQ16 + A2F	Screw, Tape Pressur Spring		RQX4573Z	Instruction Book
G 4	RKM906Z2	Bottom Case (Red)			M'tg ⊕1.6×2		RQX4586Z	Instruction Book
			G 20	RYQQJ8Z1	Cassette Lid Assembly		RJN41Z	Demonstration Tape
G 4	RKM906Z8	Bottom Case (White)			(Black)	[][]		
G 4 [Z][E]	RKM906Z6	Bottom Case (Blue)	G 20	RYQQJ8Z	Cassette Lid Assembly (Red)	1	PAC	KINGS
G 5	QGT1668	Volume Knob	G 20	RYQQJ8Z2	Cassette Lid Assembly			
G 6	QJT0039	Lug Terminal			(White)	P 1 [Z][E]	RPK1993Z	Gift Box
G 7	QBP2023	Tape Pressure Spring	G 20 (Z)(E)	RYQQJ8Z3	Cassette Lid Assembly (Blue)		RPK2007ZA	Gift Box
G 8	QQC2092	Spacer					QPA0765	Cushion
G 9 [Z][E]	RGT1139Z	Main Name Plate	G 20 [X][L]	RYQQJ8X1	Cassette Lid (Black)		QPS0707	Rad
G 9 [X][L]	RGT1139X	Main Name Plate		RYQQJ8X	Cassette Lid (Red)		XZB15X20A01	Polyethylene Cover
G 10	QJB0188	Battery Terminal		RYQQJ8X2	Cassette Lid (White)		QPC0128	Poly Sheet
G 11	XQN16 + A35FZ	Screw, Bottom Case M'tg	G 21	QHQ1362K	Ornament Screw	. •		,
		(Black, Red, Blue) ⊕1.6×3.5	1		(Black, Red, Blue)			

Mational/Panasonic

Matsushita Electric Trading Co., Ltd. P.O. Box 288, Central Osaka Japan



Service Manual

Auto-Reverse Stereo Cassette Player



Red White Black



This is the Service Manual for the following areas.

- D ...For all European areas except United Kingdom.
- ...For United Kingdom.
- N ... For Asia, Latin America, Middle East and Africa areas.

RQ-J7 MECHANISM SERIES

Specifications

Motor:

Power requirements: DB ...AC; with optional Panasonic AC Adaptor RP-31

N ... AC; with optional AC adaptor

RP-34

Battery; 3V [two R6 (UM-3) size

batteries]

Electrical governor motor

4.8 cm/s

Tape speed: 4-track 2-channel stereo playback Track system:

with included stereo headphones

Fast forward and

rewind time: Approx. 155 seconds with C-60

cassette tape

DC-in; 3V Jacks:

Headphones; output level 20mW

(at 16Ω)

1 super permalloy head for stereo playback

89mm(W)×112mm(H)×36mm(D) 235g, without batteries

Design and specifications are subject to change without notice.

Head:

Dimensions:

Mational / Panasonic

Matsushita Electric Trading Co., Ltd.

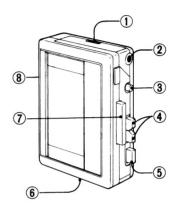
P.O. Box 288, Central Osaka Japan

RQ-J7

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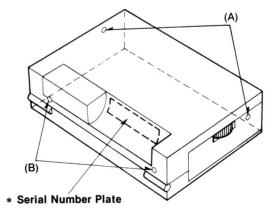
ITEM PAG	ЗE	ITEM	PAGI
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Measurements and Adjustments	3	(included Parts List)	
Circuit Boards and Wiring Connection		 Cabinet Parts Location (included Cabinet, 	
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LOCATION OF CONTROLS AND COMPONENTS



- 1 Volume Control
- (2) Headphones Jack
- 3 Direction Button
- (4) Fast Forward/Rewind Button
- (5) Stop Button
- (6) External Power Supply Input Jack
- (7) Play Button
- **8** Battery Compartment

DISASSEMBLY INSTRUCTIONS



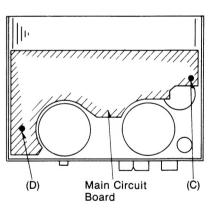
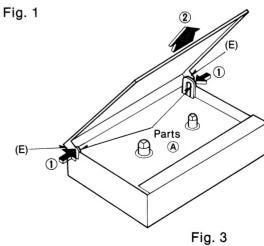


Fig. 2



Ref. No.	Procedure	Shown in Fig. —.	To remove —.	Remove —.		
1	1∼2	1	Bottom Case	Screw (1.6×3.5)(A)×2		
2	1.02	1	Bottom Case	Screw (1.6×3.5)(B):		
3	3~4	2	Main Circuit Board	Screw (1.6×5) (C)×1		
4	3,04	2	Main Circuit Board	Screw (2×1.6) (D)×1		
5	:	3		Ornament Screw (E)×2		
6	5∼6	3	Cassette Lid Assembly	Push the parts (A) in the direction of arrow (1), then lift cassette lid assembly in the direction of arrow (2).		

* Serial No. Indication

• The serial number plate of this product is attached to the battery compartment. (Shown in fig. 1)

MEASUREMENTS AND ADJUSTMENTS

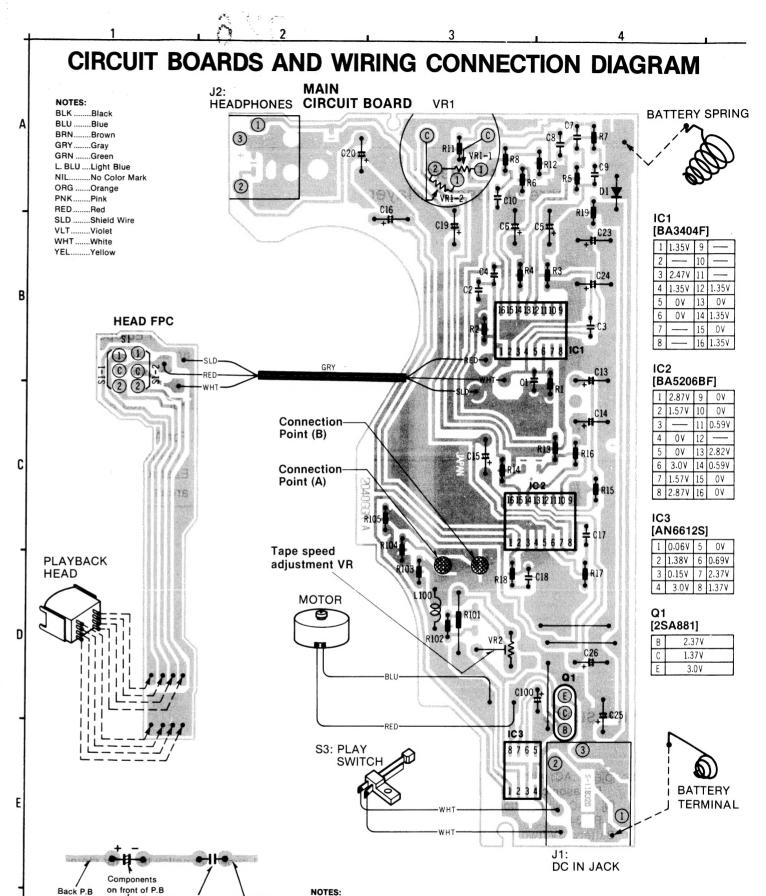
■ ALIGNMENT INSTRUCTION

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

1. Make sure heads are clean.

- 4. Set volume control to maximum.
- Make sure capstan and pressure roller are clean.
 Judgeable room temperature: 20±5°C (68±9°F)
- ADJUSTMENT

ITEM	INPUT	MEASUREMENT POINT	SPECIFICATION	ADJUSTMENT POINT	REMARKS
Head azimuth	QZZCFM (8kHz, -20dB)	Headphones jack	Maximum output	Head adjustment screw	
Governor circuit (μ adjustment)	QZZCWAT	Headphones jack	Wow and flutter: Less than 0.5% (RMS)	Short the connection point (B) by soldering.	Before measurement, short the connection point (A) and open the connection point (B) by soldering.
Tape speed	QZZCWAT	Headphones jack	3000± $^{90}_{60}$ Hz	VR2	 (1) Playback the test tape in both forward and reverse directions. (2) Adjust VR2 to obtain counter readings within specified tolerances for both directions.



Components on front of P.B are identified by black symbols.
Components on back of P.B are identified by red symbols.

circuit board (chip side).

control at minimum position. For measurement, use VTVM.

of new technology.

• This circuit shown in ____on the conductor indicates printed circuit on the back side of the printed

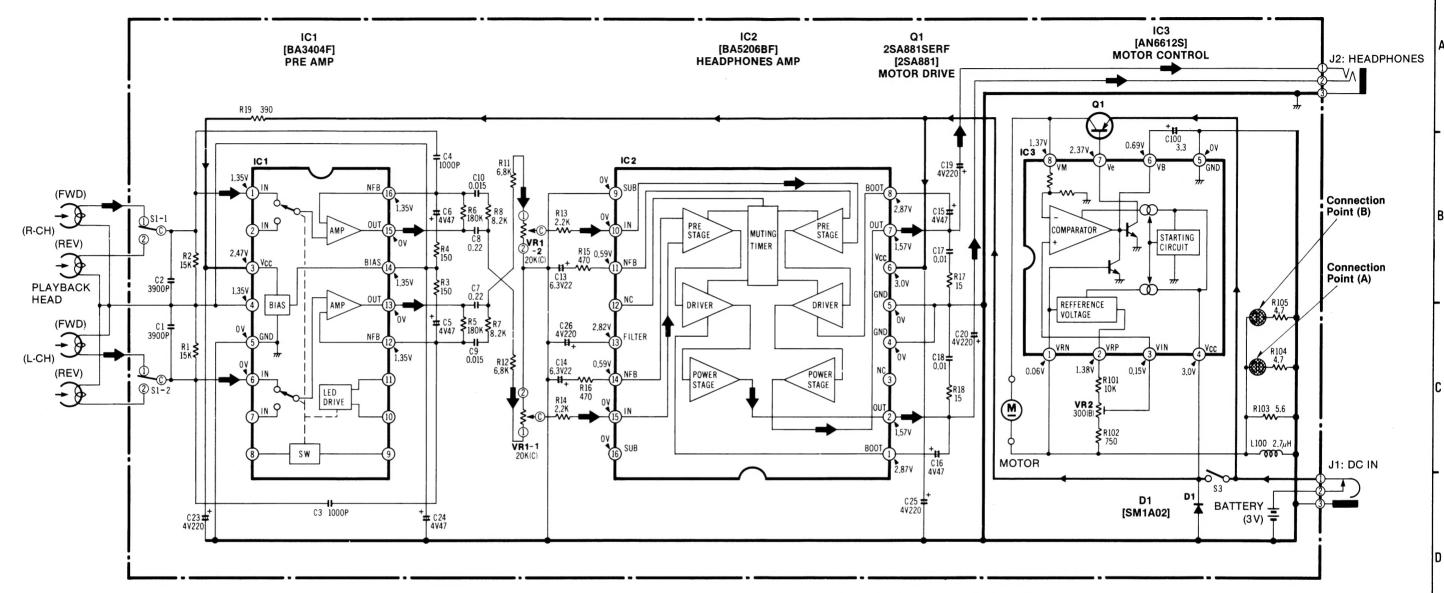
• All voltage values shown in circuitry are under no signal condition and playback mode with volume

• This circuit board diagram may be modified at any time with the development

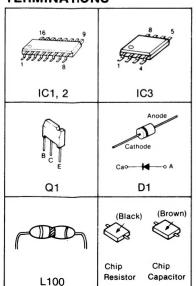
Components Back P.B.

on back of P.B pattern

SCHEMATIC DIAGRAM



TERMINATIONS



NOTES:

- S1-1, S1-2......FWD/REV switch (shown in FWD position).
- S3......Playback ON/OFF switch (shown in OFF position).
- VR1-1, VR1-2 ... Volume controls.
- VR2Tape speed adjustment VR.
- Connection point (A) and (B)...For governor circuit adjustment.
 Resistance are in ohms (Ω), 1/8 watt unless specified otherwise.
- Resistance are in ohms (Ω), 1/8 watt unless specified otherwise 1K = 1,000 (Ω), 1M = 1,000 K(Ω).
- Capacity are in microfarads (μF) unless specified otherwise.
- P = Pico-farads.

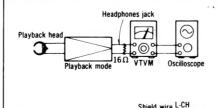
 All voltage values shown in circuitry are under no signal condition and
- playback mode with volume control at minimum position. For measurement, use VTVM.
- () this arrow indicates the flow of the playback signal.
 () this arrow indicates the flow of the B + (bias).
- Described in schematic diagram are two types of numbers; the supply parts number and production parts number for transistors and diodes.
 One type number is used for supply parts number and production parts
- number which they are identical.

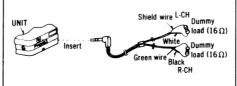
 e.g. Q1
- 2SC2412NRTB, LNSTB — Production parts number [2SC2412] — Supply parts number
- The supply parts number is described alone in the replacement parts list.
- This schematic diagram may be modified at any time with the development of new technology.

SPECIFICATIONS

Volume control...MAX.

Playback frequency response * Use test tape QZZCFM	125Hz: 0±4dB 315: 0dB 8kHz: -1±4dB
Playback gain * Use tast tape QZZCFM	Greater than 0.6 V





ELECTRICAL PARTS LIST

LLO IIIIOAL I AII	IO LIOI		
TES: RESISTORS	CAPACITORS		
ERDCarbon	ECBACeramic	ECE□Electrolytic	CHIP RESISTORS
ERGMetal-oxide	ECG□Ceramic	ECE□NNon polar electrolytic	RRDCarbo
ERSMetal-oxide	ECK□Ceramic	ECQSPolystyrene	CHIP CAPACITORS
EROMetal-film	ECC□Ceramic	ECS□Tantalum	QCU□Ceram
ERXMetal-film	ECF□Ceramic	QCSTantalum	
ERQFuse type metallic	ECQM Polyester film		
ERCSolid	ECQEPolyester film		Ref. No.

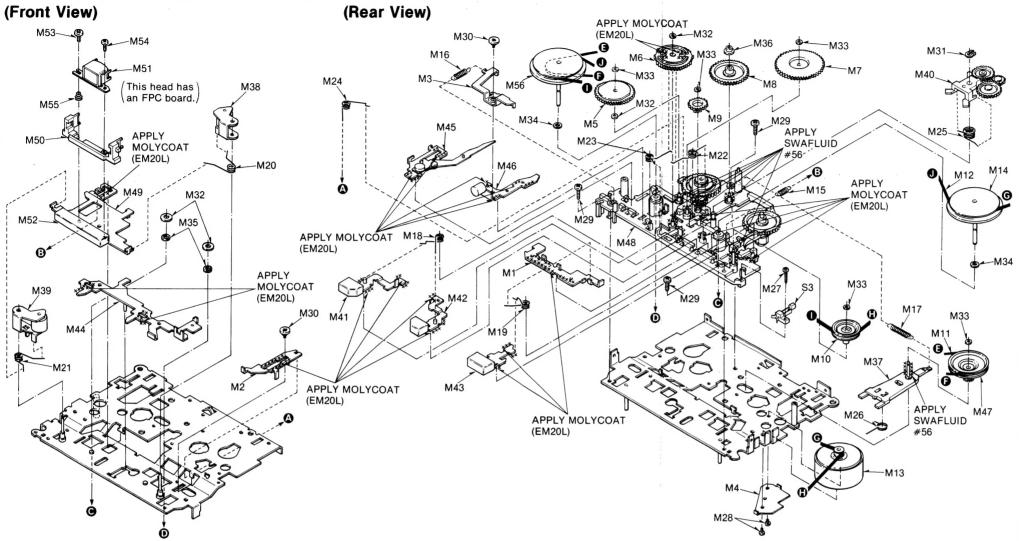
ECQFPolypropylene

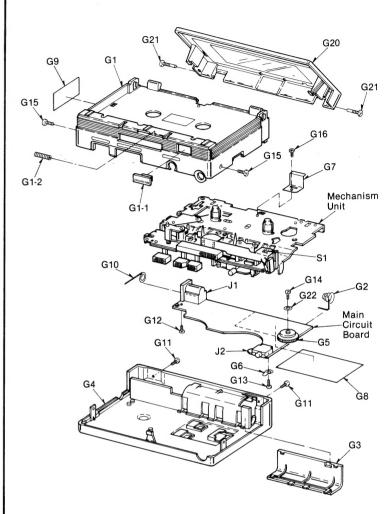
Ref. No.	Part No.	Part Name & Description					
		COIL					
L 100	ELEMT2R7MR	Peaking Coil					
SWITCHES							
S 1	QSS2238	Slide Switch (for					
S 3	QSB0311	FWD/REV) Leaf Switch (for PLAYBACK)					
JACKS							
J 1	QJA0149	DC IN Jack					
J 2	RJJ1D22Z	HEADPHONES Jack					

lypropylene REPLACI	EMENT PART	S LIST		C 19 C 20, 23	ECEA0GKS221 ECEA0GK221
Ref. No.	Part No.	Ref. No.	Part No.	C 24 C 25 C 26	ECEA0GKS470 ECEA0GK221
RESISTORS VARIABLE RESISTORS					ECEA0GKS221 ECSF0JD335
R 1, 2 R 3, 4	RRD18XJ153 RRD18XJ151	VR 1 VR 2	EVUBAAT50C24 QVNB3A00B32L	_TR	ANSISTOR
R 5, 6 R 7, 8	RRD18XJ184 RRD18XJ822	CA	PACITORS	Q 1	2SA881
R 11, 12 R 13, 14	RRD18XJ682 RRD18XJ222	C 1, 2	QCUT1H392MRL	DIODE	& RECTIFIER
R 15, 16 R 17, 18	RRD18XJ471 RRD18XK150	C 3, 4 C 5, 6	QCUT1H102MRL ECEA0GK470	D 1	SM1A02
R 19 R 101	RRD18XJ391 ERSB15J103	C 7, 8 C 9, 10	QCUX1E224ZFX	INTEGR	ATED CIRCUITS
R 102 R 103	RRD18XJ751 RRD18XK5R6	C 13, 14 C 15, 16	QCUT1H153MRL ECEA0JKS220 ECEA0GKS470	IC 1	BA3404F BA5206BF
R 104, 105		C 17, 18	QCUT1H103MRL	IC 3	AN6612S

Part No.

MECHANICAL PARTS LOCATION CABINET PARTS LOCATION

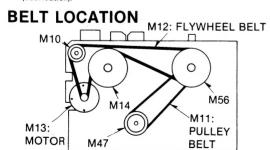




NOTES:

 When changing mechanism parts, apply the specified grease to the area marked "xx" shown in the drawing "Mechanical Parts

• [MOLYCOAT (EM20L), SWAFLUID #56]. The grease and/or oil shown in the parentheses function to prevent friction



SPECIFICATIONS

Pressure of pressure roller	165± ²⁵ ₂₀ g
Takeup tension * Use cassette torque meterQZZSRKCT	33±10 g-cm
Wow and flutter: JIS * Use test tapeQZZCWAT	Less than 0.5% (RMS)

REPLACEMENT PARTS LIST

Her. No.	Part No.	Part Name & Description	Ret. No.	Part No.	Part Name & Description
	MECHA	NICAL PARTS	M 31 M 32	XUBQ25FT QBW2126	Stop Ring 2.5φ Snap Washer 2φ
M 1	QMR2153	MR2153 Lock Rod		M 33 QBW2125 Snap Washe	
M 2	QMR2159	Release Rod	M 34	QBW2093	Poly Washer
М 3	QML4112	FWD/REV Assistant Arm	M 35	QBW2102	Poly Washer
M 4	QMF2346	Shield Plate	M 36	QMB1443	Gear Cap
M 5	QDG1340	Auto-Stop Gear	M 37	QXL1721	Playback Arm Assembly
М 6	QDG1341	Power Cam	M 38	QXL1722	Pinch Roller Arm-R
M 7	QDG1344	Conveyance Gear			Assembly
M 8	QDG1345	Reel Table Gear	M 39	QXL1723	Pinch Roller Arm-L
М 9	QDG1356	Speed Curtailment Gear			Assembly
M 10	QDP1997	Intermediate Pulley	M 40	QXL1724	Fast Forward Arm Assembly
M 11	QDB0365	Pulley Belt		21127727	
M 12	QDB0366	Flywheel Belt	M 41	QXR0985	Fast Forward Rod
M 13	MHDN4A3R	Motor		01/2000	Assembly
M 14	QXF0240	REV Flywheel Assembly	M 42	QXR0986	Rewind Rod Assembly
M 15	QBT2031	Head Return Spring	M 43	QXR0987	Stop Rod Assembly
M 16	QBT2032	FWD/REV Spring	M 44	QXR0988	Changing Rod Assembly
M 17	QBT2033	Playback Arm Spring	M 45	QXR0989	FWD/REV Rod-B
M 18	QBN2058	Fast Forward Return	M 46	QXR0990	Assembly
M 19	ODNIGOCO	Spring	M 46	QXH0990	FWD/REV Rod-A Assembly
M 19	QBN2060 QBN2061	Stop Spring Pinch Roller Spring-R	M 47	QXP0655	Playback Pulley Assembly
M 20	QBN2001	Pinch Roller Spring-R	M 48	QXK2894	Lower Base Plate
M 21	QBN2062	Pinch Roller Spring-L	IVI 40	QXN2094	Assembly
M 22	QBN2063	Uper Cam Spring	M 49	QMK2116	Head Base Plate
M 23	QBN2064	Lower Cam Spring	M 50	QMZ1316	Head Holder
M 24	QBN2066	Auto-Stop Release Spring	00	QIVIZ 1010	ricud rioldei
M 25	QBN2059	Fast Forward Operation	M 51	QWY4166Y	Playback Head (with FPC
20	42.12000	Spring			Board)
M 26	QBN2065	Playback Operation	M 52	QGO2372M	Playback Button
		Spring	M 53	QHQ1363	Head Adjustment Screw
M 27	XTNQ14C5Q	Tapping Screw ⊕1.4×6	M 54	XTN2+4F	Tapping Screw ⊕2×4
M 28	XQN17 + A22	Screw ⊕1.7×2.2	M 55	QBC1496	Head Spring
M 29	XTN2 + 4F	Tapping Screw ⊕2×4	M 56	QXF0247	FWD Flywheel Assembly
M 30	QHQ1339	Step Screw			

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description
	CABINET PARTS		G 12		Screw ⊕1.6×5	G 22	XWA2B	Spring Washer
_			G 13	XTN2 + 16F	Tapping Screw ⊕2×1.6			
G 1	QYM1013K	Main Case Assembly	G 14		Screw ⊕1.7×3		ACC	ESSORIES
G 1-1	QGT1667	Lock Knob	G 15		Z Screw ⊕1.6 × 3.5			
G 1-2	QBC8019	Lock Spring	G 16	XTNQ16 + A2F	Tapping Screw ⊕1.6×2	A 1	QFK0203K	Case Holder
G 2	QBN8038	Battery Spring	G 20			A 2 [D][B]	RP9537XP	Stereo Headphones
G 3	QKF2133K	Battery Cover	[D][B]	QYF0706K	Cassette Lid Assembly			Assembly
	"Black Type"			"Black Type"			Il European area	
	QKF2133R1	Battery Cover		I European area		[N]	RP9537XN	Stereo Headphones
	"Red Type"		[D][B]	QYF0706R	Cassette Lid Assembly			Assembly
	QKF2133W	Battery Cover	1	"Red Type"		[For A	sia, Latin Amer	ica, Middle East and Africa
	"White Type"		[For a	I European area	is.]	areas.]	
G 4	QKM1607K	Bottom Case	[D][B]	QYF0706W	Cassette Lid Assembly	A 3 [D][B]	QQT3600	Instruction Book
	"Black Type"			"White Type"		[For a	Il European area	as.]
	QKM1607R	Bottom Case	[For a	I European area	is.]	[N]	QQT3617	Instruction Book
	"Red Type"		[N]	QYF0710K	Cassette Lid Assembly	[For A	sia, Latin Amer	ica, Middle East and Africa
	QKM1607W	Bottom Case		"Black Type"		areas.	1	
	"White Type"		[For A	sia, Latin Ameri	ca, Middle East and Africa	A 4 [N]	QFTC07L017N	Z Demonstration Tape
			areas.	1		[For A	sia, Latin Amer	ica, Middle East and Africa
G 5	QGT1668	Volume Knob	[N]	QYF0710R	Cassette Lid Assembly	areas.]	
G 6	QJT0039	Lug Terminal		"Red Type"	•		-	
G 7	QBP2023	Tape Pressure Spring	[For A	sia, Latin Ameri	ca. Middle East and Africa		P/	ACKINGS
G 8	QQC2092	Spacer	areas.	1				
G 9 [N]	QGS3176	Main Name Plate	[N]	QYF0710W	Cassette Lid Assembly	P 1 [D][B]	QPN4562	Inner Carton
[For A	sia, Latin Amer	ica, Middle East and Africa		"White Type"	,	[For a	II European area	as.l
areas.	.1	,	[For A	sia, Latin Ameri	ca, Middle East and Africa	, [N]	QPN4582	Inner Carton
G 10	QJB0188	Battery Terminal	areas.		,			ica, Middle East and Africa
		,		•		areas.		,
G 11	XQN16 + A35F	C Screw ⊕1.6 × 3.5	G 21	QHQ1362	Ornament Screw	P 2	QPA0765	Cushion
· ·	"White Type"			"White Type"		P 3	QPS0707	Pad
		Z Screw ⊕1.6×3.5		QHQ1362K	Ornament Screw	P 4	XZB14X20A02	Poly Bag
	"Black and Re		I	"Black and Red		P.5	QPC0128	Poly Sheet
		, p -		und 1101	.,,,,		a. 00.20	,

-8- GAD DR DW DK BR BW BK NR NW NK Printed in Japan